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## (54) EPOXY RESIN COMPOSITION FOR LIGHT-WEIGHT COMPOSITE MATERIAL, INTERMEDIATE AND COMPOSITE MATERIAL (57)Abstract:

PURPOSE: To obtain a high-strength and lightweight composition for lightweight composite materials suitable for inner core materials, etc., being readily laminated, co-crosslinkable with other prepreg by blending an epoxy resin with specific amounts of fine hollow spheres, a blowing agent and a curing agent.

CONSTITUTION: (A) 50-95 pts.wt. epoxy resin is blended with (B) 5-35 pts.wt. fine hollow spheres (e.g. glass or alumina silicate), (C) 0.1-15 pts.wt. blowing agent (e.g. azobisisobutyronitrile), (D) 0.5-10 pts.wt. curing agent (e.g. dicyan) and (E) 0.5-10 pts.wt. curing promoter (e.g. 3-phenyl-1,1-dimethylurea). The composition is molded into a sheetlike or filmy state to give a single material intermediate for composite material, which is used to give lightweight composite materials or foamed and cured to give lightweight composite materials. Or a reinforced intermediate is obtained from the intermediate and the reinforcing material and processed to give lightweight composite materials or foamed and cured to give lightweight composite materials.

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